

# **George T. Snyder Trail**

**Mayor and City Council**

**Public Hearing**

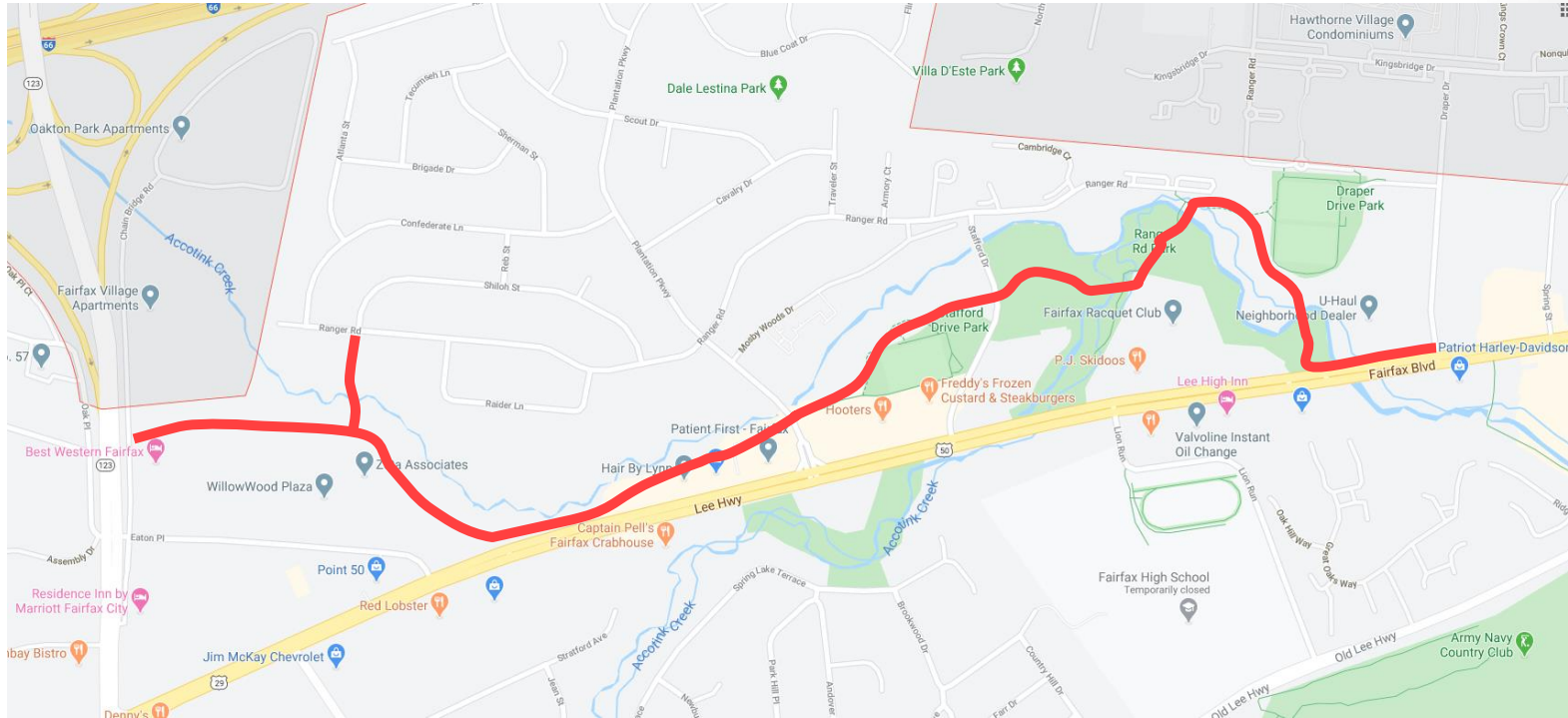
**October 13, 2020**



# Public Hearing

- Public Hearings provide the general public with a well-publicized opportunity to both review and discuss proposed plans for project. It is a VDOT requirement when using federal money. No Council action is required.
- The meeting allows property owners and other interested parties the opportunity to express and document concerns or views related to the project.
- All activities and comments are recorded and entered into a hearing record. The record is held open for at least 10 days after the hearing for additional written comments to be submitted

# Project Location



# Rt. 123 and Wilcoxson Trail Terminus



Connection to Wilcoxson Trail

I-66 Trail and Rt. 123 Connection

# Project Funding

- Outside the Beltway I-66 Concessionaire Funding
  - \$13,605,000 VDOT funding (no tax monies)
- Congestion Mitigation and Air Quality
  - \$370,000 Federal Funding
- TOTAL
  - \$13,975,000
- VDOT review requirements

# Project Objectives

- Provide a shared-use trail from Chain Bridge Road (Route 123) to Draper Drive
- Improve regional trail connectivity consistent with the 2035 Comprehensive Plan, Multimodal Transportation Plan and the Parks and Recreation Strategic Master Plan
- Provide a context-sensitive design solution that limits impacts to environmental resources, right-of-way, and utilities

# Project Timeline

- 2008-2015: Project included in planning documents; trail segments constructed behind Marketplace Boulevard to Stafford Park and Ranger Road Park to Draper Drive Park
- 2016:
  - Funding approved for development of concept plan for entire trail
- 2017:
  - Project included in Proposed Two Year Transportation Program (numerous outreach activities also associated with this)
  - Trail Alignment review with Mosby Woods Homeowners Association (March)
  - Trail Alignment review with Park and Recreation Advisory Board (April)
  - City Council endorsement of Smart Scale funding application (June)

# Project Timeline

- 2018
  - City Council endorsement of Concessionaire funding application
- 2019
  - City Council adoption of 2035 Comprehensive Plan, which lists GST as a priority project (Feb 2019)
  - Establishment of GST Advisory Group (Met May 2019, August 2019, December 2019, August 2020)
- 2020
  - Plan Review with PRAB (March)
  - Meetings with representatives from Mosby Woods, Mosby Woods Condominiums, and Cambridge Station (August)
  - Work Session with City Council (September)
  - Public Hearing with City Council (October)



# Environmental Reviews

- Completed
  - Wetland and Waters Delineation
  - Confirmation by the US Army Corps of Engineers
  - Resource Protection Area (RPA) Determination
  - Phase I Archaeology and Architectural Review
  - Coordination with the Department of Historic Resources
  - Section 4(f) determination for parkland
  - Finalized by Federal Highway Administration
  - National Environmental Policy Act (NEPA) Document
  - Approved by VDOT for FHWA
  - Threatened and Endangered Species Review
  - Tree Survey
- Remaining
  - Independent Arborist evaluation and recommendations for tree removal and replacement
  - Permit from the US Army Corps of Engineers
  - Permit for VSMP authority for stormwater and E&S

# Project Status

- Design approaching 65%
  - Trail/Bridge/Retaining Wall Design
  - Hydrology and Hydraulics/Drainage Design
  - Stormwater Management
  - Lighting
  - Landscaping
  - Erosion and Sediment Control

# Trail Design Criteria

- Minimize disturbance to Resource Protection Area and floodplain
- Minimize need for private property
- Connection to the commercial corridor
- Maximize ability to remove invasive species and replace with wide variety of native species
- Connection to existing trail segments at Marketplace Boulevard, Stafford Park, Ranger Road Park and Draper Drive Park

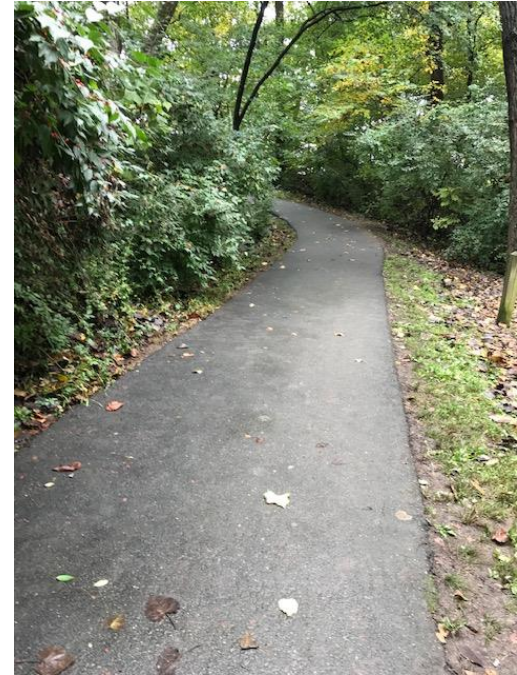
# Existing Trail Segments



Plantation and  
Marketplace Boulevard



Plantation to Stafford Park



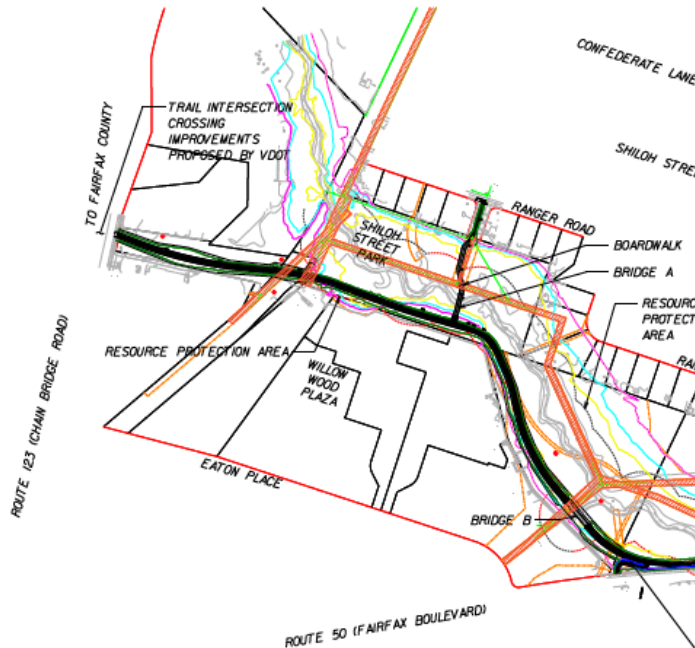
Ranger Road Park to Draper  
Drive Park

# Design Overview

- Trail Alignment
- Trail bridges
- Boardwalk and Retaining Walls
- Intersection Improvements
  - Realignment/Raised crosswalks/New Signage
- Neighborhood Connections
  - Shiloh Street Park
  - Route 50 and Willowood
  - Route 50 Terminus
- Lighting
  - At intersections / connections
- Stormwater Management / Drainage Improvements
  - Swales and inlets

# Trail Alignment Analysis

## *Route 123 to Boulevard Marketplace*

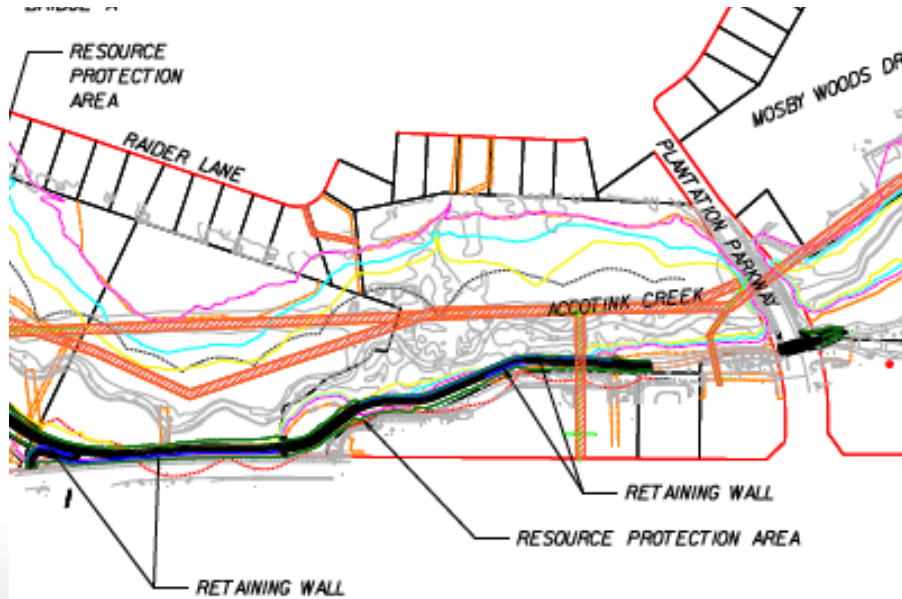


- Adjacent to commercial development
- Avoids the Resource Protection Area (RPA) and Floodplain
- Existing cleared path connecting Shiloh Street Park and Willow Wood Plaza
- Minimizes tree loss
- Sanitary Sewer Easement (SSE) narrow and adjacent to the stream
- SSE route requires use/loss of private property



# Trail Alignment Analysis

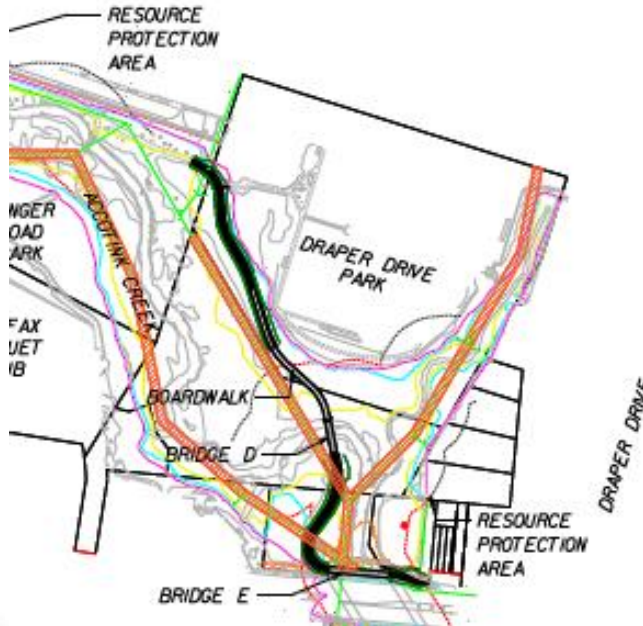
## *Boulevard Marketplace to Plantation Pkwy*



- Adjacent to commercial development
- Avoids the RPA and Floodplain
- Existing path behind Boulevard Marketplace
- Connects to existing trail
- Minimal loss of trees
- SSE adjacent to and in the stream

# Trail Alignment Analysis

## *Draper Drive Park to Rt. 50*



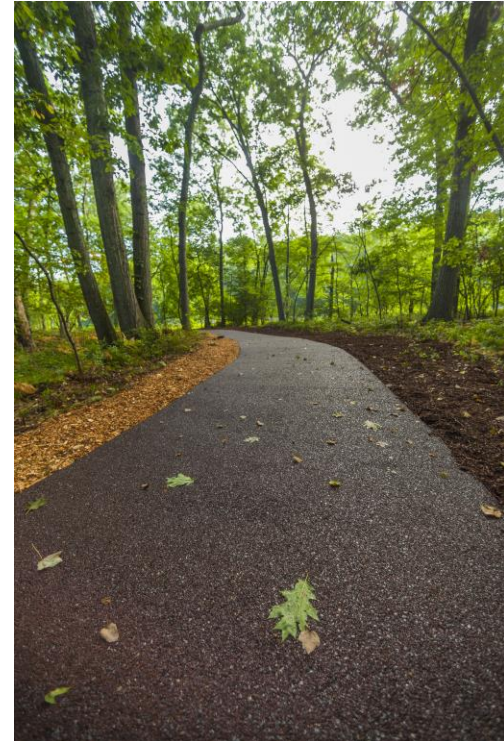
- Following portion of SSE
- Using a boardwalk system
- Minimal tree loss
- Connects to existing trail



# Trail Width and Materials

- 8-10 feet wide
- Designed to meet ADA requirements
- Existing trail is asphalt and stone dust
- Asphalt, porous asphalt and boardwalks
- Bridges 14 feet wide

Examples of porous  
asphalt trails



# Design Overview

- Bicycle/Pedestrian Bridges
  - Accotink Creek - Four crossings
  - Unnamed Tributary – One crossing
  - 14-ft clear width
  - Thru-truss design, weathering steel
  - Concrete decks



# Design Overview

- Boardwalk
  - Bridge approaches within floodplain
  - Type and appearance



Site Context



Deck: Concrete planks, 14-ft clear width (left), savannah brown color (top right), wood texture (bottom right)

- Boardwalk
  - Typical layout





# Design Overview

- Boardwalk
  - Railings

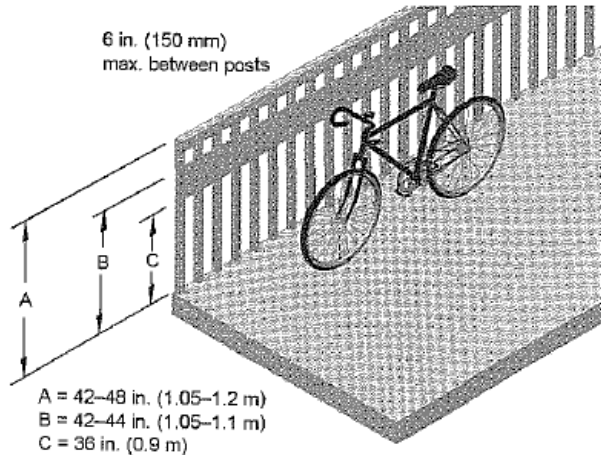
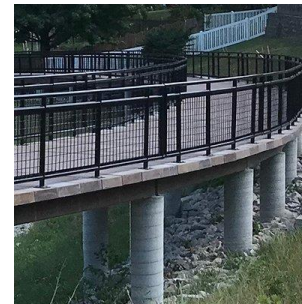
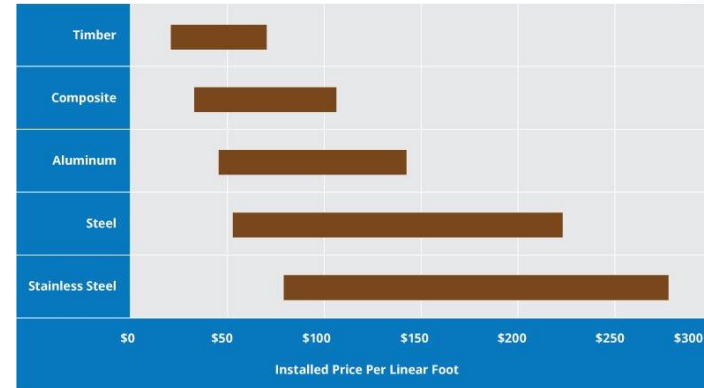


Figure 5-11. Bridge Railing

Source: AASHTO



Aluminum with mesh  
panels



Stainless Steel with  
tensioned cable

# Design Overview

- Retaining Walls
  - Required between trail and private properties to minimize property impacts
  - Use to limit grading impacts to forested area
  - Segmental block walls
  - Variable Height (3' to 17')



# Design Overview

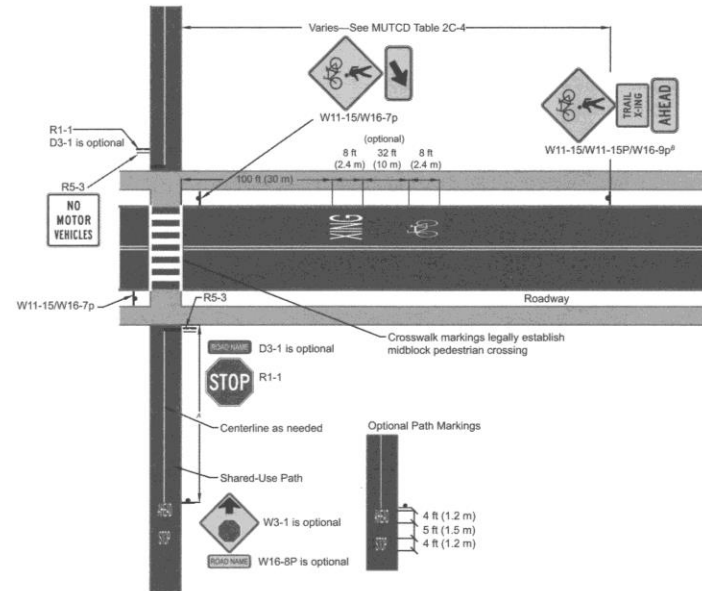
- Intersections



Example of raised crosswalk



Typical bollard layout, with center removable bollard



Notes:

<sup>A</sup> Advance warning signs and solid centerline striping should be placed at the required stopping sight distance from the roadway edge, but not less than 50 ft (15 m).

<sup>B</sup> W11 series sign is required, supplemental plaques are optional.

Figure 5-19. Example of Mid-Block Path—Roadway Intersection—Path is Stop Controlled for Bicyclists

# Design Overview

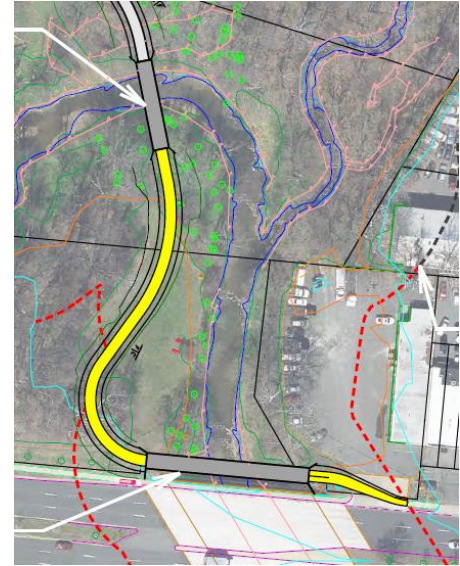
- Neighborhood and Commercial Corridor Connections



Shiloh Street Park Connection



Rt. 50 Willow Wood Connection



Terminus at Rt. 50



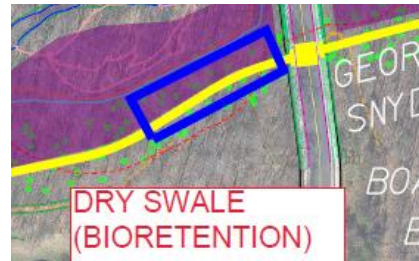
# Design Overview

- Lighting
  - Intersections and trail junctions
  - King K703/803 Solitaire w/ flat lens
  - Dark-sky Friendly



# Design Overview

- Proposed Stormwater Measures
  - Porous Pavement
  - Dry Swale
  - Sheet flow to conserved areas
  - Rain Gardens



# Design Overview

- Context Sensitive Design
  - Alignment in areas where removal of invasive trees and understory are needed
  - Alignment out of the floodplain as much as possible
  - Use of native trees and plantings to restore the forest
  - Use of retaining walls to reduce grading impact to forest
  - Use of boardwalks to minimize impact in the floodplain
  - Addition of stormwater features



# Design Overview

- Safety Considerations
  - Safety railing on retaining walls
  - Trail buffer
  - Intersection lighting
  - Approaches to bridges
- Project Aesthetics
  - Treatment for retaining wall
  - Lighting
  - Landscaping
  - Vista Viewing Decks
  - Educational Signage

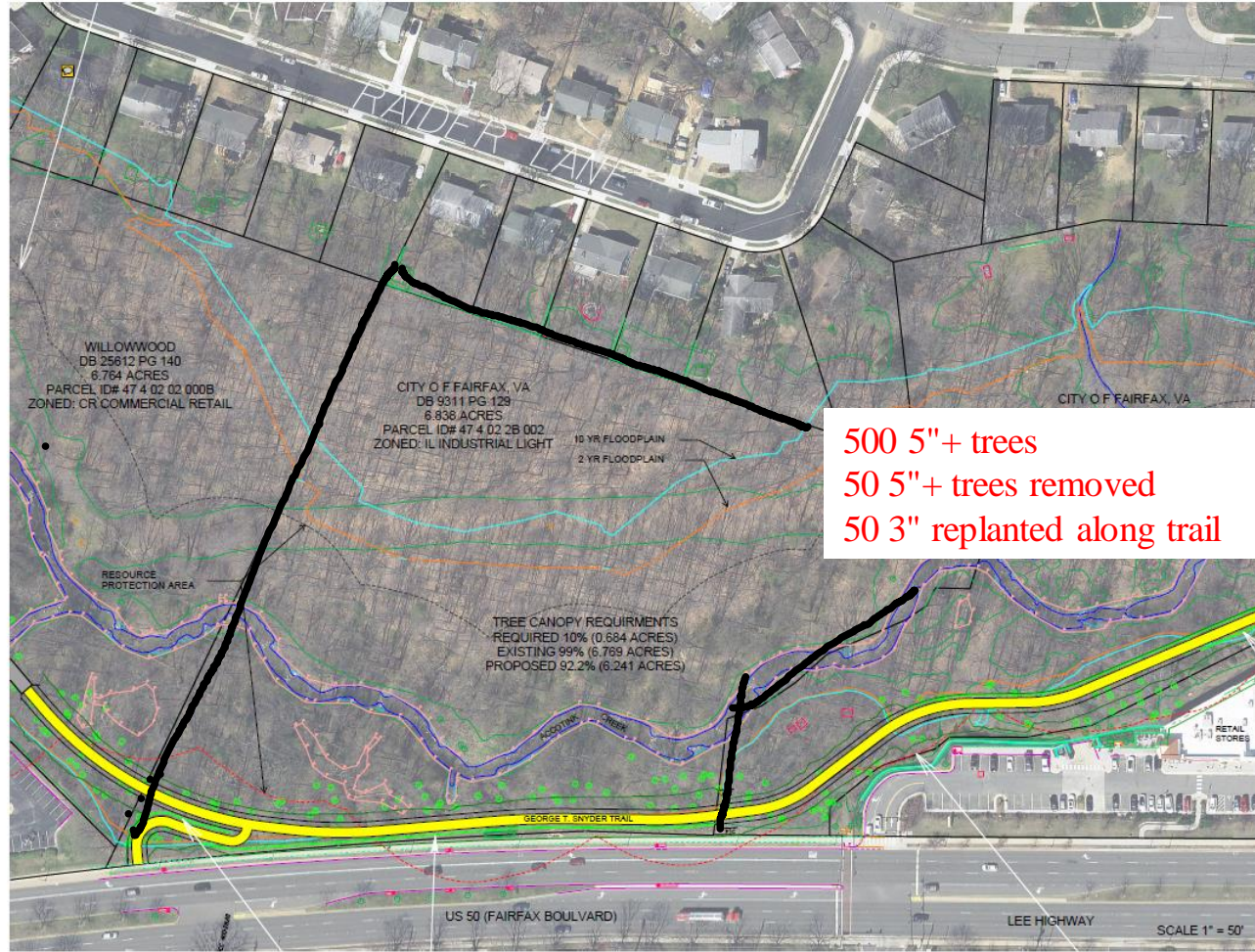




# Tree Removal and Replacement Plan

Action	Existing and Future	Where/What
1,200+ Surveyed	5" and over	Within AOD = 30-40'
Species Identified	Limited Variety Non-Native	50% Tulip Poplar, Red Maple
500 Trees Removed within 1.4 miles of trail	Limited Variety Non-Native, Invasive	40% Tulip Poplars, Red Maple
Minimum 1:1 Ratio Tree Replacement, Following ISA recommendations	Expanded Variety Native	Within AOD, Connector, Terminus Points, Permanent Easements
Additional Plantings	Understory trees, Evergreens, Shrubs, Perennials, Grasses	Within AOD Connector, Terminus Points, Permanent Easements

# Sample Tree Canopy

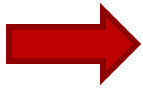


500 5"+ trees  
50 5"+ trees removed  
50 3" replanted along trail

# Tree and Planting Plan

- Native species
  - Identified in the City of Fairfax Design Guidelines
  - Additional Removal of Invasive Vines and Understory

Before



Existing Crossing near Accotink Creek Confluence

After



Existing Trail at Stafford Park



# Tree Replacement Plan-NATIVE

## Large Shade Trees

*Serviceberry*  
*River Birch*  
*American*  
*Hornbeam*  
*Common*  
*Hackberry*  
*Redbud*  
*Cockspur*  
*Hawthorn*  
*Common*  
*Persimmon*  
*American Beech*  
*Sweetgum*

*Tulip Poplar*  
*Black Gum*  
*American*  
*Sycamore*  
*Swamp White*  
*Oak*  
*Pin Oak*  
*Willow Oak*  
*Eastern*  
*Hornbeam*  
*Sourwood*  
*Sassafras*  
*American Linden*

## Small Trees

*Paw Paw*  
*Fringe Tree*  
*Flowering Dogwood*  
*Sweetbay Magnolia*  
*Red Chokeberry*

## Evergreens

*American Holly*  
*Eastern Red Cedar*  
*Southern Magnolia*  
*Eastern White Pine*  
*Loblolly Pine*  
*Virginia Pine*



# Trail Maintenance

Material/Task	Avg Life	Replacement Cost	Annual Cost
Asphalt	20-30 years	\$350,000	\$3,000 repair
Porous Asphalt	20 years	\$15,000	\$3,400 cleaning
Boardwalk	50-75 years	Unknown	\$1,500 cleaning
Stormwater BMP's	20-30 years	Unknown	\$3,600 labor and contractual
Trash Disposal	20 years	\$1,000 per can	\$1,300 labor
Lighting	20-30 years	\$7,000 per pole	\$1,000 per bulb
Landscaping	20-30 years	Unknown	\$1,500 labor
Signage	20 years	\$15,000	\$500 cleaning
Miscellaneous	As needed	N/A	\$5,000

# Upcoming Project Milestones

- October 2020: Public Hearing
- Spring 2021: City Council Work Session for consideration of special use permit
- Spring 2021: City Council Public Hearing for consideration of special use permit for proposed impacts to the floodplain associated with the trail, including issuance of Conditional Letter of Map Revision (CLOMR) from FEMA, and any other required special approvals
- Winter 2022: Proposed advertisement for construction
- Spring 2022: Proposed award date

# Questions?